BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects for discussion invited.

STRABISMUS—WHEN TO OPERATE

RODERIC O'CONNOR, SAN FRANCISCO. — Any condition that is amenable to surgical cure should, theoretically, be operated when nonoperative measures have failed, and when further delay is apt to result in harm.

This indication is most positive in strabismus because the vision of the squinting eye is usually lost and binocular vision never learned, unless connection has been made early.

By securing early parallelism of the eyes three things are gained: (1) Vision in the deviating eye is saved unless it is congenitally absent. (2) *Normal* development of binocular vision is made possible. (3) Cosmetic improvement.

Monocular vision can be saved by persistent alternate occlusion of the eyes though few parents possess the necessary persistence.

Binocular vision cannot be trained in small children. It is best learned in the normal way.

Cosmetic Improvement.—Heretofore this has been the prime reason for operating, and so the usual practice has been to wait till the child is thirteen or fourteen years old, by which time the head has attained its full growth and there is less chance of harm resulting from the type of operation commonly used. The operation chosen is either an advancement of the tendon, or a tuck, combined with a tenotomy of its opponent. This tenotomy is wrong in principle, but has been found necessary in practice to keep the advancement sutures from pulling out. Sometimes a squint of the opposite kind is produced in which event we have a condition much harder to correct than the original.

The problem then has been to find an operation that can do no mechanical harm, thus leaving us free to attempt to do good.

Such an operation was first described by me in 1912. It is a loop shortening of the tendon without sutures. Tenotomy of the opponent is not needed in young children. *Thus the risks connected with those operations dependent on sutures are avoided.*

As the general effects of the operation itself are nil, it can be done as soon as the child can stand a twenty-minute anesthesia.

What, then, is the best plan to follow in those children whose eyes have *never been straight?* To operate early and permit the eyes to develop all their functions normally, or to wait till glasses can be fitted in the hope that they will give the desired result and that monocular and binocular vision can then be learned? A great deal to hope for! Luckily about 70 per cent of squints occur after the second year and a chance has been given to try out the nonoperative treatments.

For the past fifteen years I have been operating as close to the third birthday as possible, provided glasses have failed. In many even this early date has been too late for any functional results; all that are secured are cosmetic.

I am now of the opinion that those children whose eyes have never been straight should be operated upon as soon as they can stand the anesthetic. I feel that only in this way can such cases be given a chance for normal development of monocular and binocular vision. The question of glasses can come up after correction, as in those children who are not strabismic.

By this practice the appearance of habit contractions and relaxations, in accordance with Sherrington's law, might be prevented, these being the main causes of our troubles later on in getting good results without tenotomies.

This plan will, of course, mean some unnecessary operations but, as Deaver used to say about early appendix operations, "That which is best for the greatest number is the thing to do."

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HANS BARKAN, SAN FRANCISCO.—The very question, when to operate in strabismus, means how early can or should we operate. Is any age too early? In my opinion, no, provided certain factors are present, or absent, as the case may be. The first essential needed is a proper understanding on the part of the surgeon of the physiologic and optic problems involved in strabismus; the second, a method of operating that can be used with safety at as early an age as other factors indicate operation. The first condition we will suppose to be present. The second one is met, I believe, only by the method devised by Dr. Roderic O'Connor; provided, then, that the operator has the necessary physiologic and optic knowledge, and that he is familiar with the method of Doctor O'Connor, no age is too early under certain conditions.

We will put it for purposes of illustration as we would put it to the parents of the child. If the deviating eye is losing in vision in spite of exercises or various methods of optical stimulation, operate, age indifferent. If the deviation is of permanent degree, even though slight, and not at all or only slightly correctible by glass, operate, no matter at what age. If stereoscopic vision is absent, operate and train the eyes with various methods to acquire stereoscopic vision and fusion ability.

I have operated on children of less than a year in cases where a marked deviation of one eye was present and had been present for months, due in one case, for instance, to partial congenital

cataract of one eye. Late attempts at fusion training are useless unless the eyes are parallel by operation before training. Early attempts at fusion training meet with a resistance of an impatient or willful child; all attempts at fusion training meet with indifference on the part of the patients unless results can be seen sooner, and this is only possible if the child is operated upon first, its eyes restored to parallelism, and fusion training then promptly commenced.

The older conceptions of operating late in strabismus cases were maintained mostly because methods of operating were cumbersome and uncertain, and in some cases resulted in deviation of the eye to the opposite side as the child grew up. Those of us who have used Doctor O'Connor's operation have been able to operate with safety at very early ages, know what results we will get, and can early in life give the child not only a proper cosmetic appearance but also, by proper training after the eyes have been straightened, acquire for the child the proportion of good vision of both eyes in every sense, that is, not only good central vision, but all degrees of fusion.

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JOSEPH L. MCCOOL, SAN FRANCISCO.—Convergent squint in children is very prevalent. It is far too often either neglected or improperly treated. Unfortunately ophthalmologists in many instances are not entirely blameless.

Two phases of this subject should be brought to the attention of the general physician and pediatrician, and through them to the general public. First, that strabismus, or squint as it is commonly called, is a serious disease and should have prompt and early attention by an ophthalmic surgeon so that vision in the squinting eye may be saved and binocular single vision developed before it is too late; and secondly, that it is in no way amenable to cure by means of so-called "muscle exercises."

If the child shows any abnormal deviation of the eyes immediately after birth which persists through the first year and thereafter, it may safely be assumed that there is a congenital palsy of one or more of the ocular muscles. Glasses and orthopic treatment will not restore parallelism of the optic axes. Operation only can effect a cure.

If the squint does not develop until the child reaches the age of two or three years, every effort should be made by means of profound cycloplegia with atropin and glasses to relieve the squint.

It is perfectly true that orthopic training in young children, and for that matter, even in those old enough to appreciate what it means, is nearly always disappointing. For that reason I am of the opinion that as soon as the surgeon is convinced that glasses will not cure the squint, proper operative measures should be instituted. However, I cannot subscribe to the opinion that operation should be performed before glasses have been worn constantly for a year or a year and a half.

Certain types of refractive errors which cannot be discussed at length now, furnish exception to this rule, but in the majority of cases I am sure this practice is sound.

Certainly one is never justified in advising that operation be put off until the child is ten or twelve years old. Many precious years are wasted during which one eye is hopelessly disabled and the prospect of establishing binocular single vision is very remote.

Fortunately most general practitioners and pediatricians are keenly alive to the importance of this subject, and are referring these squinting children as soon as the diagnosis is made, no matter how young they may be, to the ophthalmic surgeon, who alone is competent to handle them. The treatment, both medical and surgical, should not be attempted by anyone who is not qualified to carry it through to a successful conclusion.

A properly selected and carefully performed shortening of one or more muscles without any disturbance of the opponents is the operation of choice. In the hands of a competent operator the operation is devoid of any risk if the usual surgical precautions are taken.

Parents might possibly object to the administration of an anesthetic in children as young as four years, but they should be shown how much binocular single vision means to all of us and urged to give their children a chance to acquire it.

Tonsillectomies are recommended and performed on young children. This is sound practice. Why, then, should we hesitate to operate early for squint when so much more is involved.

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LLOYD MILLS, LOS ANGELES.—The results of progress in any line filter so slowly to the levels of those untrained in that line that current practice often is decades in advance of current belief.

Popular knowledge of the treatment of ordinary "crossed eyes," for example, still is based largely upon the bad cosmetic and functional results which followed the complete tenotomies of thirty or more years ago, despite the fact that the results of modern methods consistently approach as near to perfection of appearance and function as any other corrective procedure in all surgery.

The persistence of this popular misconception has been fostered to a large extent by certain optometrists and irregulars, stimulated by exaggerated claims put forth by optical manufacturing houses in the campaign to sell their instruments for orthopic exercises. No exploitation of patent medicines ever was balder and, while the situation will right itself in time, yet thousands of eyes of children will lose central vision permanently before the return of sanity.

Nearly 80 per cent of the cases of alternating strabismus over six years of age which have come to me have been advised strongly against operation by such practitioners, and many of these cases have been treated unsuccessfully by their methods. If these persons had the least knowledge of the pathology of the conditions which they were trying to correct; if they could see thin fascial planes with thinner wisps of muscular

tissue trying to act as opponents to normal, robust muscles, and could note the abnormalities of tendon insertions alone, they would realize the absurdity of attempting anything less than surgery in such cases.

I may say with deep conviction that the great majority of the cases of strabismus upon which I have operated could never have been cured by any means other than surgery, owing to the actual mechanical defects present in the muscles, tendons, and insertions.

My own considerable experience and attitude accord in general with those of Drs. O'Connor, McCool, and Barkan. I believe that operation should be performed, regardless of age (but regarding general condition, of course) as soon as a reasonable use of fully correcting lenses proves inadequate. It has been my experience that if such lenses are ineffective within a few months they are never effective.

I believe that my own good results in this work have been the result of attempting to obtain a complete correction in every case in a single operation. I have used tendon tucking with or without graduated tenotomies as needed, and have not yet taken up O'Connor's methods, as it seemed impossible to improve much, if any, upon the cosmetic and functional results obtained by my own procedures. In fifteen years I have had only five overcorrections, all following the use of the Lowell triple tenotomy clamp, now discarded. Several years ago I reoperated successfully two cases in which Doctor O'Connor had done inadequate operations. I know the basic soundness of Doctor O'Connor's muscle work, however, and wish to add my very sincere tribute for the high plane to which he has raised the surgery of the ocular muscles.

The Life History of Cancer.—If there is one fact of which we have clear and certain knowledge, it is that early cancer is often curable. Yet in this enlightened age one is astounded at the extent to which patients will allow cancers to grow before they seek advice. They hesitate and hesitate until they are indeed lost. Whereas, if they had consulted their doctor at an earlier stage and if the doctor had known what to do, a tragedy might have been averted. The experience of all who had dealings with cancer is darkened by those tragedies of the "too late." I do not hesitate to say that many of the deaths now credited to cancer should more properly be ascribed to neglect.

One reason is that cancer casts an unreasoning dread over its victims and that dread makes them reluctant to seek advice until it is too late and the time for cure has passed. There is the dread of cancer itself and the hope that the suspicious sign will prove not to be cancer after all, if only you wait long enough. But that is the one thing you cannot do: you cannot wait.

Everyone knows that cancer is incurable when it has been allowed to go too far. And it is often allowed to go too far because of that unreasoning dread which paralyzes the will, and because of that false hope which prevents timely action. Much of that dread would vanish if the patient would grasp the truth that early cancer is far from being the hopeless thing that late cancer unhappily is. On the contrary, in most of its common positions in the body, early cancer is wonderfully curable, even by the imperfect methods at our command, when those methods are rightly used.

It is one of the bright spots in our experience of cancer that the earlier the treatment the greater is the chance of cure, and that in all early cases there is indeed great promise of complete cure. Many persons are known to be alive and well today long after an early cancer has been removed. And of those who have succumbed to cancer, many more could have been saved if the cancer had been removed at an earlier stage. I am convinced that even now we can do something to prevent cancer and we can do much more to prevent death from cancer if the patient and the doctor do the right thing. Two conditions must be strictly observed: (1) the cancer must be identified with certainty at the earliest possible stage in its life history and (2) the treatment must be perfectly adapted for that particular type of cancer. For there are cancers and cancers.

One word of warning I must give. The diagnosis of early cancer and the treatment of early cancer both demand the highest skill of which the medical profession is capable. Do not, therefore, I entreat you, waste the precious moments during which alone a cure is possible, in seeking unskilled advice or in trying quack remedies. That is but a form of suicide—slow but sure—for delay spells death.

The Signs of Early Cancer.—The beginning of a cancer is always obscure. It is an insidious growth, well camouflaged. Often we have no means of detecting the cancer process until it has well begun, but we should be able to detect it with certainty before it has become well established. Many early cancers do not form a tumor in the sense of a lump or a mass that we can see or feel, and most early cancers are painless. Yet a danger signal is always flown—the red flag of hemorrhage, the lump in the breast, the unhealing sore about the mouth, the persistent indigestion, and so on. Now when those danger signals of cancer appear, both patient and doctor must be on their guard. A danger signal is a warning, given in order that an accident may be averted. Here the accident that we seek to avert is an unnecessary and preventable death from cancer.

It is a source of comfort, as well as a source of danger, to know that not every bleeding, not every lump, not every sore is caused by cancer. Indeed the greater number of such signs are due to conditions which are not cancerous, but which may become cancerous when they are not properly treated. Two great opportunities are given when first these danger signals appear: (1) If they are due to early cancer, opportunity is given for the cure of that cancer; and (2) if they are not due to cancer, opportunity is given to prevent cancer. The great danger comes when the patient or the doctor gambles on the chance that the suspicious sign may not be cancer or may never become cancer and takes no further trouble to make certain one way or the other. That is a danger which every patient and every doctor should face frankly and bravely, for the doctor, too, needs courage as well as special training.—David Arthur Welsh, M. D., *Medical Journal of Australia,* April 26, 1930.

Lung Cancer and Smoke.—The National Smoke Abatement Society of London has published a lecture on smoke and health, and as quoted in the *Journal* of the American Medicine Association on June 21, 1930, says that "there is evidence that smoke is a factor in the production of thoracic cancer." It is shown that the prevalence of cancer is higher in places where the atmosphere is smoke-laden. This is explained by the fact that tars and mineral oils have been shown to produce cancer. Studies of this kind in the smoke-laden atmosphere of several of the cities in this country ought to be instructive. Pittsburgh isn't the only city that offers a fertile field for investigation.—Editorial *Indiana Medical Association Journal,* September 1930.